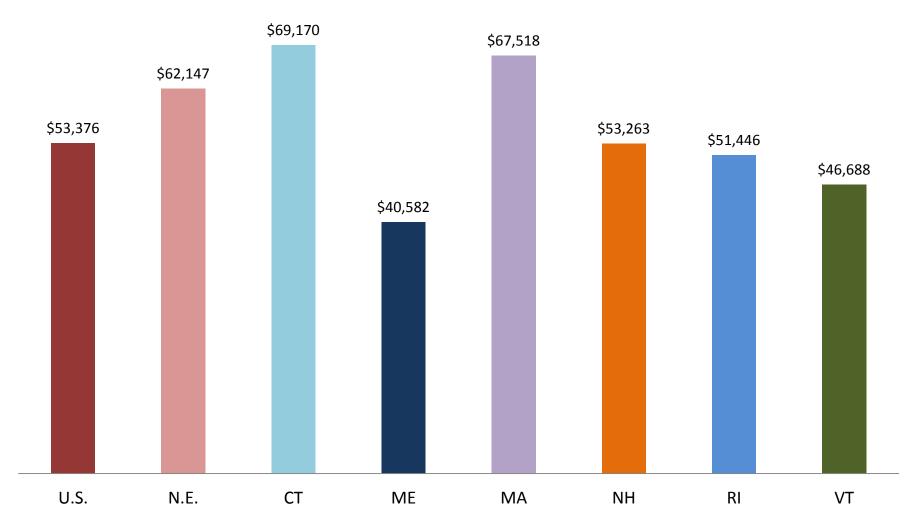
GDP per Capita and a Measure of Income Inequality: Background Information

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January 2016

GDP per capita in the U.S., New England, and by state in 2014 in 2014 dollars

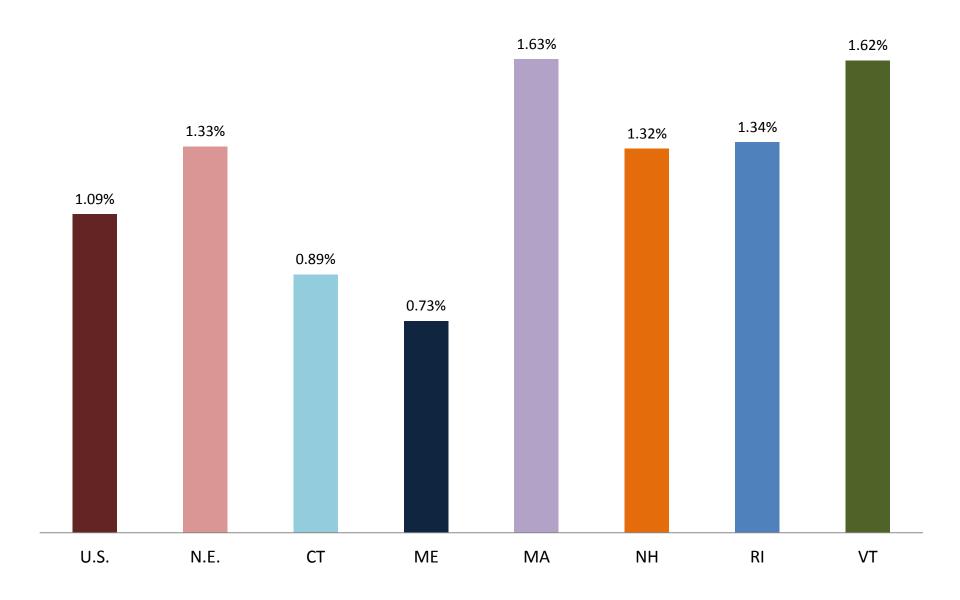


Source: U.S. Bureau of Economic Analysis, December 2015

GDP per capita in Vermont relative to the United States and New England

- Vermont's gross domestic product (GDP) per capita in 2014 was \$46,688 in 2014 dollars
- New England's GDP per capita was \$62,147
- GDP per capita in the United States was \$53,376
 - Vermont's amount was 87.5 percent of the U.S. level
 - New England's amount was 116.4 percent of the U.S. level

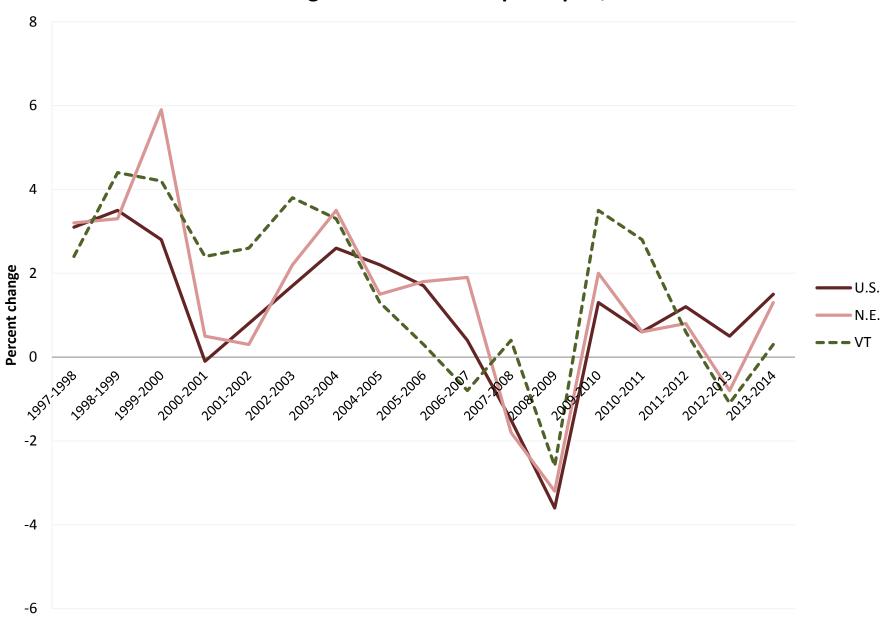
Compound Annual Growth Rate in Real GDP per Capita, 1997-2014



Since 1997, Vermont's average annual rate of growth in real GDP per capita was high

- Vermont's real (inflation-adjusted) GDP per capita grew 1.62 percent per year, on average, from 1997 to 2014
- U.S. real GDP per capita grew 1.09 percent per year, on average, from 1997 to 2014
- Among the New England states, only
 Massachusetts had higher average annual growth in real GDP per capita at 1.63 percent
- Note: a break in the data series precludes comparing data prior to 1997

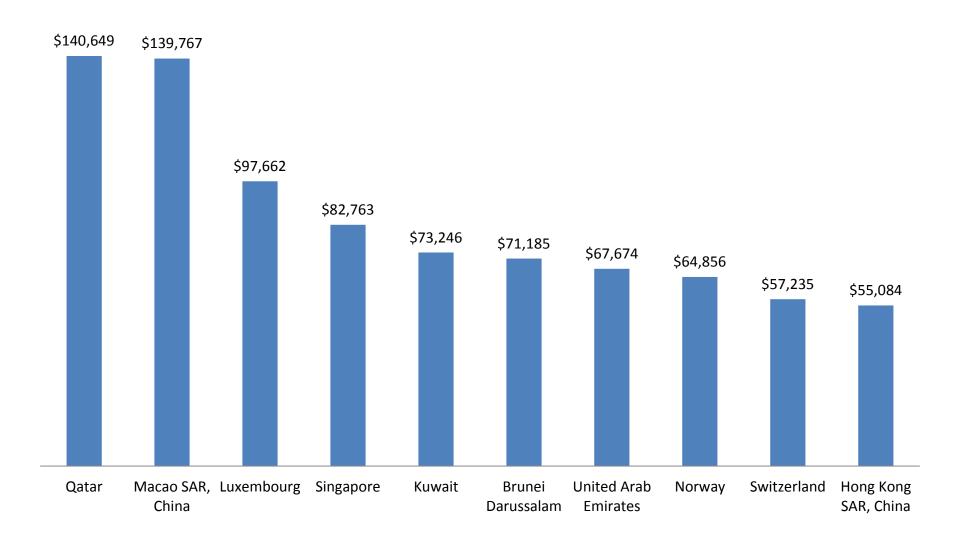
Annual rate of growth in real GDP per capita, 1997-2014



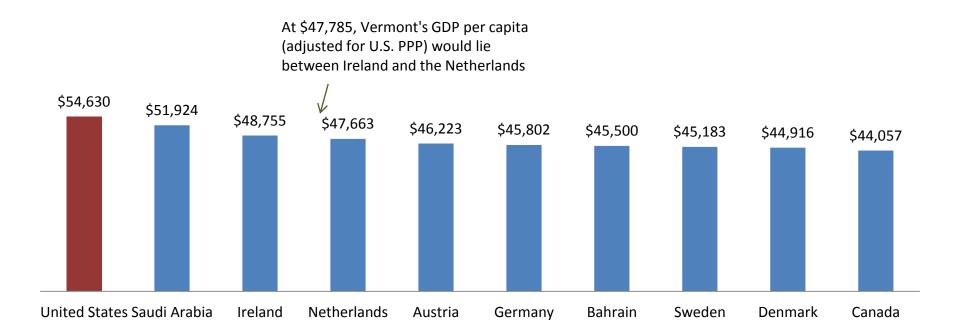
Vermont's average annual growth rate of real GDP per capita has slowed since the mid-2000s

- On average, Vermont's annual growth in real GDP per capita was 3.05 percent between 1997 and 2005.
 - For the U.S., that growth rate was 2.08 percent.
- On average, Vermont's annual growth in real GDP per capita was 0.38 percent between 2005 and 2014.
 - For the U.S., that growth rate was 0.23 percent.

Top ten countries, GDP per capita in 2014 Adjusted for Purchasing Power Parity, in 2014 dollars



Second ten countries, GDP per capita in 2014 Adjusted for Purchasing Power Parity, in 2014 dollars



World Bank ranking of countries by GDP per capita (PPP), 2014

- The World Bank uses actual data on GDP per capita and then adjusts for purchasing power parity (PPP) across countries. Based on data from 2014, the United States ranks #11.
 - Adjusting for purchasing power parity converts the purchasing power of each country's currency so that it is comparable across different countries.
- If Vermont were placed in the rankings according to GDP per capita in 2014, it would be between #13 Ireland and #14 The Netherlands.

Measuring income inequality

- Income inequality is often measured by a standard statistic, the Gini coefficient.
 - A score of "0" on the Gini coefficient represents complete equality, meaning that everyone has the same income.
 - A score of 1 would represent complete inequality, where one person has all the income and others have none.
- The World Bank calculates the Gini coefficient using income data, where available, for developed countries.
- The Census Bureau calculates the Gini coefficient for households in the U. S. and the individual states using self-reported pre-tax income data from the American Community Survey.
 - When calculating the Gini coefficient for the United States, the Census Bureau and The World Bank use different data sources and slightly different methods; hence the results are not directly comparable.
 - Using post-tax income in U.S. states with progressive taxation would reduce the reported Gini coefficient.

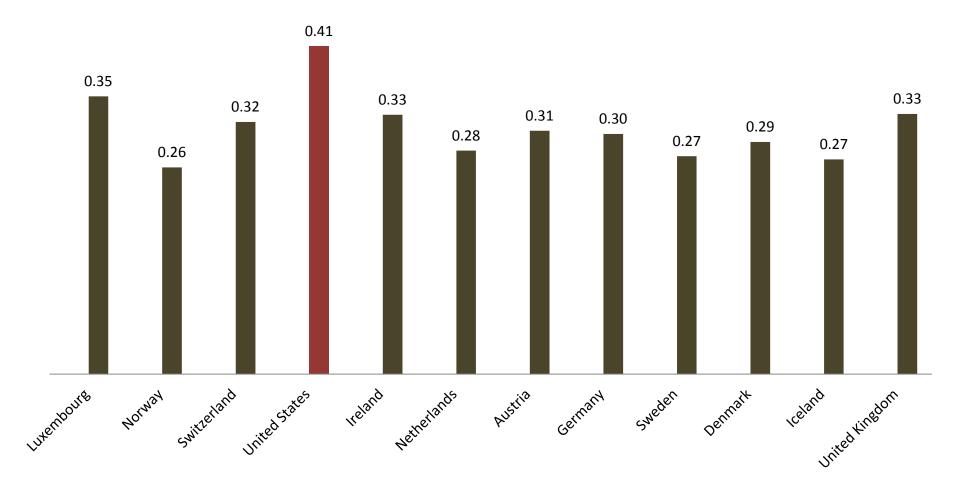
What is not included in the Gini coefficient measure?

- The Gini coefficient measures the distribution or degree of inequality of money income within a country.
 - It does not reflect the overall standard of living.
- The Gini coefficient is based on pre-tax, pre-transfer income.
 - A progressive tax system could produce more equal after-tax incomes.
 - A generous system of government transfer programs could produce more equal after-transfer incomes.
 - For example, many European countries have progressive tax systems and generous transfer programs for health care, education, and income support. The distribution of standards of living in those countries would be more equal than indicated by the Gini coefficient.

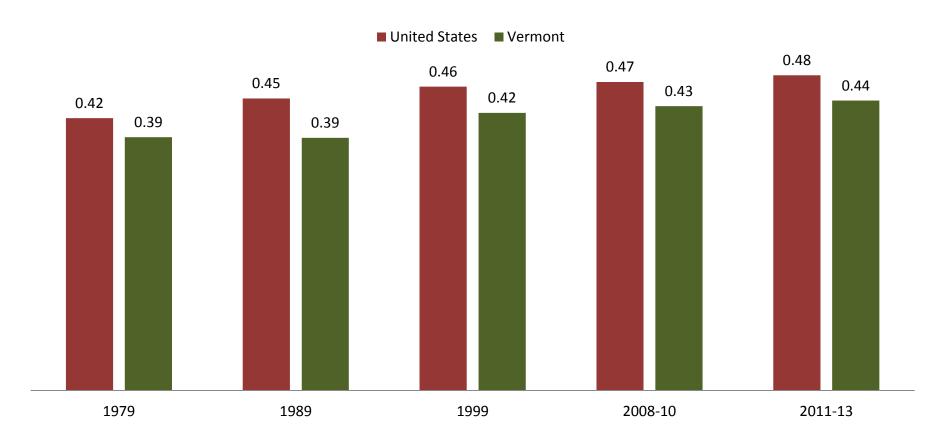
Where does the U.S. rank in income inequality? What about individual states?

- The United States has the most unequal distribution of income among all Western industrialized nations.
- Within the United States in 2013,
 - the District of Columbia had the most unequal income distribution.
 - Alaska and Wyoming had the least unequal income distribution.
 - Vermont ranked among the 14 least unequal states based on pre-tax incomes.

A measure of income inequality, the Gini coefficient, for select developed countries, 2012; A lower coefficient implies less income inequality



A measure of income inequality, the Gini coefficient, for the U.S. and Vermont, various years; A lower coefficient implies less income inequality



Note: The margin of error for the U.S. in any one year is about 0.001; it is larger for individual states and is about 0.009 for Vermont.

The Margin of Error in the Gini

- The Census Bureau now uses data from the American Community Survey to calculate the Gini coefficient.
 - The margin of error in each year is about 0.001 for the United States
 - The margin of error in each year is larger for individual states and is about 0.009 for Vermont
- The Gini coefficient for Vermont is reported as an average of 2008-2010 and 2011-2013 to reduce its variability

Rising Gini coefficients

- The Gini coefficient for the United States according to the Census Bureau rose from 0.42 in 1979 to 0.48 in 2011-2013, showing an increase in income inequality.
- The Gini coefficient for Vermont rose from 0.39 in 1979 to 0.44 in 2011-2013, reflecting less income inequality than in the U.S. but rising inequality over time.
 - Among the New England states in 2011-2013, only New Hampshire had less income inequality at 0.43.
 - Connecticut had the most income inequality at 0.49.
 - Gini coefficients are based on pre-tax incomes. If post-tax incomes were used, the Gini coefficients would change.

Sources

- Slides 2, 4, and 6: U.S. Bureau of Economic Analysis, data query, December 2015
- Slides 8 and 9: The World Bank, 2014 data adjusted for PPP; http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?order=wbapi data value-wbapi data value-last&sort=desc
- Slide 13: The World Bank <u>http://data.worldbank.org/indicator/SI.POV.GINI</u>; Chart shows data for the most recent available year: 2012 for all except Germany (2011) and the United States (2013).
- Slide 14: Source: Census Bureau, <u>https://www.census.gov/prod/2011pubs/acsbr10-02.pdf;</u> <u>https://www.census.gov/prod/2012pubs/acsbr11-02.pdf;</u> <u>https://www.census.gov/content/dam/Census/library/publications/2014/acs/acsbr13-02.pdf; and other years.</u>